

Date: Sun, 16 Oct 94 04:30:12 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: List
Subject: Ham-Ant Digest V94 #347
To: Ham-Ant

Ham-Ant Digest Sun, 16 Oct 94 Volume 94 : Issue 347

Today's Topics:

A3 Cushcraft in the attic
DISTRIBUTION STATUS
Is SWR it?
Q: VLF antenna design
TV Rabbit Ears for 2m ?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 14 Oct 1994 16:04:12
From: JairoE@aol.com
Subject: A3 Cushcraft in the attic

I just bought a new house and no antennas are allowed in the area. I have a
Cushcraft A3, Does anybody have any experience using this antenna inside the
attic? and How can I ground the antenna?

Thanks in advance

JAE

Date: 15 Oct 94 05:43:05 GMT
From: POSTMSTR@GSGMVS.EMIS.HAC.COM (Postmaster)
Subject: DISTRIBUTION STATUS

SMTPGATE.HAMANT DISTRIBUTION STATUS INFORMATION 10/15/94 05:43
:28

=====

DISTRIBUTION ID: SMTPGATE.HAMANT.3109
SUBJECT : Ham-Ant Digest V94 #346
DOCUMENT NAME : %%DOCNAME
DATE SENT : 10/15/94 TIME SENT: 05:41:00

=====

YOUR MAIL WAS NOT DELIVERED FOR THE FOLLOWING REASON:

SNADS STATUS : 0006
X.400 CODE : %%DIAGCODE
INFORMATION : %%SUPPLINFO
EXPLANATION : SNADS PERMANENT SERVER ERROR

=====

RECIPIENT : CCMAIL.00A8929
LAST NAME :
FIRST NAME :
MIDDLE INITIAL :
INITIALS :
NATIVE NAME :
COUNTRY :
ADMD :
PRMD :
ORGANIZATION :
ORG UNIT 1 :
ORG UNIT 2 :
ORG UNIT 3 :
ORG UNIT 4 :
DDA :
TITLE :
DESCRIPTION :
USERDATA :
TELEPHONE :

Date: Fri, 14 Oct 1994 22:09:41 GMT
From: gary@ke4zv.atl.ga.us (Gary Coffman)
Subject: Is SWR it?

In article <37kuvb\$ji1@marlin.gulf.net> lester@marlin.gulf.net (Sean Lester)
writes:

>If you match your antenna imedance with your transmitition line and

>transmitter, then get your SWR down to < 1.2:1, do I have to worry
>about anything else for VHF? I put a couple of loops in my feedline
>at the antenna as an RF choke, just in case. But, I'm afraid I may be
>missing something.

Yes, you're missing several things like gain, radiation pattern, and efficiency. A low VSWR only indicates that the transmission line/load are absorbing the power of the transmitter, not that they are doing anything useful with it. A broad flat VSWR curve *may* indicate a very lossy antenna system. Your antenna system may have enough resistive losses that most of your power is actually being turned to heat instead of useful radiation. Your antenna pattern may be such that most of the power that is radiated is directed upward or downward, or otherwise in a non-useful direction. Your antenna may exhibit negative "gain" in the desired direction, etc. All that can exist with a low VSWR reading. So yes, there are lots of things other than VSWR to worry about.

Hams tend to be obsessed with VSWR because instruments to measure it are so widely, and cheaply, available. Far more important are the field strength and pattern produced by the antenna.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		emory!kd4nc!ke4zv!gary
534 Shannon Way		Guaranteed!		gary@ke4zv.atl.ga.us
Lawrenceville, GA 30244				

Date: 15 Oct 1994 14:23:39 GMT
From: vhansen@ipfy.bau-verm.uni-karlsruhe.de (Wolfgang von Hansen)
Subject: Q: VLF antenna design

Hi everybody!

First of all I want to apologize for my bad english regarding the technical terms--but being a beginner to antenna design implies not knowing all the words correctly.

I need some information on how to build a VLF antenna. It shall receive signals at 10-14kHz with an omnidirectional characteristic. It should also be quite small [$\leq 1\text{ft}$] in size.

Currently I am thinking of two ferrite bars (?) which are arranged orthogonally. What I need to know is how to calculate the resonant circuit. I also need infos on how to build a simple amplifier and connect the antenna to it. A transformation of the signal to other frequencies is not necessary.

Thaks in advance,

Wolfgang

--

```
vhansen@ipf.bau-verm.uni-karlsruhe.de | Gurus use `cat >a.out' instead of gcc
float o=0.075,h=1.5,T,r,0,l,I;int _,L=80,s=3200;main(){for(;s%L||
(h-=o,T= -2),s;4 -(r=0*0)<(l=I*I)|++ _==L&&putchar(*((--s%L?_<L?--_
%6:6:7)+"World! \n"))&&(0=I=1=_r=0,T+=o /2))0=I*2*0+h,I=1+T-r;}
```

Date: 15 Oct 1994 07:29:38 -0400
From: beau@enterprise.america.com (J. E. Winburn)
Subject: TV Rabbit Ears for 2m ?

Rafael Solis (rafaels@zimmer.CSUFresno.EDU) wrote:

: It would be possible to make a (portable) 2m dipole with a TV rabbit
: ears antenna. Each each of this antenna extends from 10'' to about
: 40''.

: Would it work just by soldering a coax and (BNC) connector? Has anyone
: tried this? Any encouragement will be appreciated.

: Rafael, KE6JSR
:

Very interesting....

I would think that you would have to remove the 300 ohm ribbon line
from the rabbit ears and solder the BNC connector directly to the two
elements of the ears and carefully mark the elements at their extended
point that is resonant at your desired freq.

The rabbit ears are still a little bulky however. I use 300 ohm
ribbon line cut into a Jpole configuration for my portable VHF and
UHF antenna. You will have gain over the dipole and true portability
that you can fold up and place in your shirt pocket. There have been
several post on this antenna including a program that will calculate
the lengths of the Jpole elements.
Beau..KD4GFY

Date: Fri, 14 Oct 1994 22:49:21 GMT
From: mack@ncifcrf.gov (Joe Mack)

References<1994Oct5.140644.23655@arrl.org> <373266\$30m9@info2.rus.uni-
stuttgart.de>, <682014245wnr@ifwtech.demon.co.uk>
Subject: VHF/UHF DX book

In article <682014245wnr@ifwtech.demon.co.uk> G3SEK@ifwtech.demon.co.uk writes:
>In article: <19940ct7.223912.2532@arrl.org> zlau@arrl.org (Zack Lau (KH6CP))
writes:

>>

> from Ian G3SEK | Editor, _The_VHF/UHF_DX_Book_
> Abingdon, England |
> g3sek@ifwtech.demon.co.uk | "In Practice" columnist for RadCom (RSGB)
>

Thank you for the VHF/UHF DX book, which is the best ham book I have read
in probably 15-20 years. Very inspiring.

I got mine by chance. WWhen I tried to get another for a friend
I couldn't find it anywhere in the US, for love or money. The ARRL
doesn't have it, major ham sotres don't have it, minor ham stores
don't have it. There isn't an address to get it from in the front
cover. How do I get one, if I only have US\$? (getting a bank draft is
a minor pain and costs \$5.00).

Joe Mack
NA3T

Date: 15 Oct 1994 07:21:50 -0400
From: beau@enterprise.america.com (J. E. Winburn)

References<36i2i6\$jja@enterprise.america.com> <37c73c\$1nl@jericho.mc.com>,
<37h46n\$qn6@hplvec.lvld.hp.com>
Subject: Re: Tiger Tail (HT antenna)

Scott Turner (scott@lvld.hp.com) wrote:
: Bob Levine (levine@mc.com) wrote:

: : I discovered that in the plane of the HT (my FT530), the signal strength
: : is greatly increased with the TT.(>2x) The signal strength directly
: : above the HT goes way down. The TT seems to increase the lobes
: : in the horizontal plane and reduce the amount of energy going
: : vertical. I did these tests the best I could with the HT in
: : a plastic holder and keyed up from about 5 feet away with a
: : speaker mic so I would interfere as little as possible.

: Bob, I would respecfully submit that your test is a bit flawed. For
: normal usage, you *are* part of the antenna system on an HT. Performing
: the test with your body away from the antenna won't give you realistic
: results.

: Some time ago, a friend was playing around with a network analyzer and

: decided to look at his 2 meter HT antenna. He was somewhat surprised to
: find that it appeared to be resonant outside the 2 meter band. He then
: moved his head next to the antenna and tried again. You guessed it.
: The antenna was now nicely resonant inside the band.

: My guess is that your body's proximity to the antenna will have about as
: much positive affect as the TT does. In other words, I remain sceptical.

Scott,

I have run test on the tiger tail myself and firmly agree with you.
Running the test without the body in close proximity is unrealistic. When
the tigertail is tested with the HT close to the body there is NO noticable
change in the signal transmitted with or without the TT. The received
signal isn't really considered as the HT will be able to hear
signals that it cant reach unless it is another HT.

Beau

Date: 15 Oct 1994 16:46:14 GMT

From: little@iamu.chi.dec.com (Todd Little)

References<37idkr\$78t@mozo.cc.purdue.edu> <37kvvb\$cn2@nntpd.lkg.dec.com>,
<37lmsm\$2rca@info2.rus.uni-stuttgart.de>

Reply-To: little@iamu.chi.dec.com (Todd Little)

Subject: Re: 2m quad construction - help!

In article <37lmsm\$2rca@info2.rus.uni-stuttgart.de>, moritz@ipers1.e-technik.uni-
stuttgart.de () writes:

|>>That quad should give around 10 dBi

|>

|>Todd,

|>

|>Is that all? I know a design for a 7 ele yagi that gives an extra
|>two dB for the same amount of material and is also pretty wide band
|>and forgiving. The added advantage is, that it is fed ba a folded
|>dipole with a proper balun.

|>

|>So the 4 ele VHF quad seems to be easy to build but doesnt work too well.

Well I don't know of any other 1/2 wavelength antennas that give that kind
of gain. A 7 element yagi is going to twice as long. And for doubling
the length it only gives 2 dB more gain? ;-)

73,

Todd

N9MWB

Date: 15 Oct 1994 16:42:46 GMT
From: little@iamu.chi.dec.com (Todd Little)

References<36q6d6\$s60\$1@mhade.production.compuserve.com> <CxEnKJ.E7L@eskimo.com>,
<500XpBk.rutledges@delphi.com>
Reply-To: little@iamu.chi.dec.com (Todd Little)
Subject: Re: Antennas are prohibited ...!!!!!!..

In article <500XpBk.rutledges@delphi.com>, Priscilla Rutledge
<rutledges@delphi.com> writes:

|>Just to provide the Devil's advocate, it is not just a pretty looking
|>neighborhood that we, your neighbors, want. As you may have noticed,
|>most folks in late 20th century America make decisions based on perception,
|>rather than real risk. I personally don't mind even a 20m antenna if
|>you don't let it get rusty and tumbledown. What happens, though, is that
|>when I go to sell my house (and since so many of the people in my
|>association are military, 10-20% of them are on the market at any given time)
|>the eco-wimps ask worried questions about the "invisible rays" zapping
|>through the children's little bodies. If they heard you use the phrase
|>"Radiation Pattern" they probably wouldn't move into the same county.
|>This foolishness can trim \$10-15K off my final selling price. True, it

This may be your perception, but there are no studies that I'm aware of that
support that supposition. In fact, there are studies to the contrary, and in
addition, if it was \$10-15K, there would be something in an appraisers
handbook about it, but there isn't.

|>is neither my foolishness nor yours, but I reserve the right to
|>from whatever "liberty" anyone chooses to take with it!

Taking away the rights of others in the pursuit of liberty sounds just a
little bogus.

73,
Todd
N9MWB
From ham

End of Ham-Ant Digest V94 #347
